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EXAMINER

STEELMAN, MARY J

ART UNIT

PAPER NUMBER

2191

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 09/939,846 | Applicant(s) POOLE ET AL. | |
| | Examiner Mary J. Steelman | Art Unit 2191 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9-12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,2,4-7,9-12,14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to Remarks and Amendments received 02/14/2006. Per Applicant's request, claims 1, 4, 6, 9, 11, and 14 have been amended. Claims 3, 8, and 13 have been cancelled. Claims 1, 2, 4-7, 9-12, 14, and 15 are pending.

Double Patenting

2. As noted in the prior Office Action, claims 1-15 remain provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims (1, 5, 7-8) of co-pending Application No. 09/939,813 (hereinafter '813) respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following observation. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) maybe used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

As stated by Applicant in Remarks (page 7, 2nd paragraph), the double patent rejections will be substantially addressed by Applicant upon an indication of allowable subject matter.

Claim Objections

3. In view of the cancellation of claims 3, 8, and 13 the prior objections are hereby withdrawn.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 11, 14, and 15 are rejected under 35 U.S.C. 101 because claim 11 recites “An article of manufacture...” As noted on page 4, lines 10-15 of Specification, the Applicant appears to imply that the term “article of manufacture” as used in claim 11 encompasses carriers or signals, which are not statutory embodiments. The Office position is that carriers and signals are a form of energy and thus not a process, machine, manufacture or composition of matter within the meaning of 35 USC 101. Applicant should amend claim to clarify.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4-7, 9-12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,208,345 to Sheard et al., in view of US Patent 5,485,615 to Wennmyr.

As Per Claim 1, Sheard teaches that a visual data integration system architecture and methodology is disclosed. The system architecture includes a transport framework that represents a technology-independent integration mechanism that facilitates the exchange of technology dependent data between disparate applications. (E.g. see Abstract and associated text). In that Sheard discloses the method that covering the steps of:

-an Integrated Development Environment (IDE)

(Sheard: E.g. see col. 3:16-18, which states "A visual interface facilitates the design, deployment, and runtime monitoring of an integrated information system (IDE) implementation")

-executed by a computer, for creating and maintaining a multi-tier business application

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(Sheard: E.g. see col. 3:24-26, which states "Various component icons maybe packaged together in business extension modules. (multi-tier business application)to provide users with specific business integration capabilities")

-on a multiple tier computer network, wherein the IDE includes a Topological Multi-Tier Business Application Composer

(Sheard: E.g. see col. 24:55-67, which states "... in the presentation of a menu item ... provides a tree view of the network environment currently in operation...")

-that is used by a developer to graphically create and maintain

(Sheard: E.g. col. 6:1113, which states "...facilitate the design, deployment, and runtime monitoring...")

-the multi-tier business application

(Sheard: E.g. col. 3:24-26)

-a Meta-model that captures and persistently stores information entered via the Composer"

(Sheard: E.g. see col. 29:51-61, which states "Storage of the meta-model is typically implemented using a file based approach ...")

-an Interactive Agent that monitors

(Sheard: E.g. see Fig. 17 and associated text)

-the Meta-model for an occurrence of an event

(Sheard: E.g. border 546 for status information)

-that comprises a possible non-optimization in a portion of the multi-tier business application based upon a heuristic analysis of information gathered by the Composer and stored within the Meta-model,

Sheard disclosed (col. 23:41-45), "Confirming the integrity ... by comparing the meta-data models (heuristic analysis of information gathered by Composer) ..."; (col. 29:32-36), "...a meta-model approach allows the validity of a data integration implementation to be verified (non valid implementation a possible non-optimization)..." Sheard disclosed (FIG. 18 & col. 31:47-col. 32:4) for a project configured, a user interface 501 performs a lookup to the meta-model for each adapter and performs a comparison (heuristics). An 'inconsistent' model (possible non-optimization in a portion of the application) triggers a suggestion of a modification.

Sheard failed to provide explicit details regarding:

-wherein the Interactive Agent operates from a knowledge base stored as a part of the Meta-model,

However, Wennmyr disclosed (col. 3, line 16), "providing interactive support for the development of a software product..." Col. 6, line 23, "Now referring to FIG. 3,...illustrating the primary components of an expert system...Information stored within the knowledge base

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30..." Col. 7, line 2, "Central to the operation of the support system 8 (Meta Model captures / stores information entered via the Composer. Likewise, the user interface/activity window 48 (col. 7, line 40) of the assistant captures the model being developed) is the assistant 12 (Interactive Agent). The assistant 12 comprises the assistant logic module 42 and the assistant logic interpreter 44...The assistant logic interpreter 44 houses the expert system 20." Col. 7, line 45, "The expert system 20 in the assistant 12 analyzes the actions of the user 16 (through messages received...or choices made in the assistant user interface)..."

-and the knowledge base is structured in such a way that the occurrence of the event causes the Interactive Agent to access the knowledge base to identify context information comprising a list of suggested and recommended actions for the event,

Wennmyr disclosed that events cause the assistant (Interactive Agent) to access the knowledge base (col. 7, line 45), "analyzes the actions of the user 16 (events) in the context of the current process and generates the proper graphical information for the particular situation." Col. 7, line 52, "The information displayed, for example, may take the form of lists (list of suggested and recommended actions), or could take the form of graphical representations...The numerous interfaces available are illustrated...The user has the choice as to which mode of interfaces most appropriate..." Col. 9, line 4, "the assistant 12 may, as a result of the analysis of block 72, deem automatic tool invocation unnecessary and, instead, generate a new set of suggestions for the user (list of suggested and recommended actions for the event). The new set of suggestions is based upon the new process state created (identify context information)."

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-in order to trigger a display of graphical element including the context information in the Composer to interact with the developer.

Col. 7, lines 45-60, "The expert system 20 in the assistant 12 analyzes the actions of the user 16...in the context of the current process and generates the proper (choices proper for the context) graphical information (trigger a display of graphical element) for the particular situation...may take the form of lists, or could take the form of graphical representations..." A display graphical element is presented on the user interface (for interaction with the developer). The display provides context information, lists of suggestions / recommendations presented to the user / developer.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify Sheard's invention for visual development, by including Wennmyr's disclosure of using a knowledge base, that is accessed in response to certain events, and presents a list of suggestions and recommended actions to the user, because one would be motivated to develop a program that was valid. Sheard was suggestive of a "knowledge base", as integrity is confirmed, validity verified, as noted above.

As Per claim 2:

"wherein the Interactive Agent includes a Novice mode, and the Interactive Agent is triggered in the Novice Mode when an event occurs that is selected from a group comprising: opening a new window...;

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(E.g., see col. 19:51-63 which states "...include the following activatable buttons: new, open, save, delete, and print...")

As Per claim 4:

-wherein the possible non-optimization is determined by examining attributes of the multi-tier business application stored within the Meta-model.

(As an example, see col. 31:47-67, which shows that during development, selected adapters are compared by the visual interface (for non-optimization) . Adapter meta classes are presented for user mapping of attributes.)

As Per claim 5:

-wherein the Meta-model is updated and kept in synchronization with any updates made to the multi tier business application via the Composer window.

(As an example, see col. 31:47-col. 32:4, which shows that during development, selected adapters are compared by the visual interface (for non-optimization) . Adapter meta classes are presented for user mapping of attributes. The selection of OK generates a mapping file (meta-model is updated).)

As Per Claim 6:

See rejection of limitations as addressed in claim 1 above.

As per Claims 7, 9 and 10:

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The rejection of claim 6 is incorporated and claims are rejected under the same reason set forth in connection of the rejection of claims 2, 4 and 5 respectfully.

As Per Claim 11:

This is the manufacture claim corresponding to the system claim 1 and is rejected under the same reason set forth in connection of the rejection of claim 1.

As per Claims 12, 14 and 15:

The rejection of claim 6 is incorporated and claims are rejected under the same reason set forth in connection of the rejection of claims 2, 4 and 5 respectfully.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 6, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Note additional reference located:

USPN 5,745,765 to Paseman Col. 1, line 1, "configuration of custom products using selectable components", col. 2, line 44, "uses constraint-based programming. This is a relatively new branch of artificial intelligence (AI)...", col. 3, line 3, "the designer is guided in all the new choices of components."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached at (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman



04/19/2006